

What is claimed:

1. A connector pair, comprising:

an overmolded connector, comprising:

5 at least one first terminal having a first terminal sex;

at least one wire respectively coupled for electrical communication with each of

said at least one terminals; and

an overmolded body having an overmolded connector terminal end, an

overmolded connector wire end and an overmolded connector outer

10 surface, said overmolded body at least partially encasing said at least one terminal and said at least one wire;

a hardshell shroud having a first connector sex, said hardshell shroud comprising:

a substantially rigid shroud body having a shroud terminal end, a shroud wire end,

a shroud inner surface and a shroud outer surface;

15 wherein said overmolded connector is contained within said hardshell shroud;

a hardshell connector housing having a second connector sex, said hardshell connector housing comprising:

at least one second terminal having a second terminal sex;

a substantially rigid connector body having a connector body inner surface and a

20 connector body outer surface;

wherein said hardshell shroud may be interengaged with said hardshell connector, such that said at least one first terminal engages respective ones of said at least one second terminal.

2. The connector pair of claim 1, wherein said overmolded body comprises injection molded PVC.

3. The connector pair of claim 1, further comprising:

5 a plurality of annular sealing rings formed on the overmolded connector outer surface between the overmolded connector terminal end and the overmolded connector wire end;  
wherein said plurality of annular sealing rings are held against the connector body inner surface when said hardshell shroud is interengaged with said  
10 hardshell connector.

4. The connector pair of claim 1, further comprising:

a first polarizing feature having a first polarizing sex formed on the overmolded connector outer surface adjacent the overmolded connector wire end.  
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5. The connector pair of claim 4, further comprising:

a second polarizing feature having a second polarizing sex formed on said shroud inner surface adjacent the shroud wire end, such that said first and second  
20 polarizing features interengage.

6. The connector pair of claim 1, further comprising  
a raised sealing ridge formed around a periphery of the overmolded connector  
terminal end; and  
a reservoir formed within a boundary of said raised sealing ridge and adapted to  
5 contain a quantity of dielectric grease;

wherein said raised sealing ridge is held against the connector body inner surface  
when said hardshell shroud is interengaged with said hardshell connector.

7. The connector pair of claim 1, wherein said substantially rigid shroud body has an  
10 asymmetrical polarizing shape.

8. The connector pair of claim 7, wherein said substantially rigid connector body has  
the asymmetrical polarizing shape.

15 9. The connector pair of claim 1, wherein said substantially rigid shroud body has an  
opening formed through the shroud wire end and allowing said at least one wire to pass  
therethrough.

10. The connector pair of claim 1, further comprising:  
20 at least one first locking feature formed on said substantially rigid shroud body  
and having a first locking feature sex.

11. The connector pair of claim 10, further comprising:  
at least one second locking feature formed on said substantially rigid connector  
body outer surface and having a second locking feature sex, such that said  
first and second locking features lockingly interengage.

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12. A connector pair, comprising:

an overmolded connector, comprising:

at least one first terminal having a first terminal sex;

at least one wire respectively coupled for electrical communication with each of

10                   said at least one terminals; and

an overmolded body having an overmolded connector terminal end, an

overmolded connector wire end and an overmolded connector outer

surface, said overmolded body at least partially encasing said at least one

terminal and said at least one wire;

15       a hardshell shroud having a first connector sex, said hardshell shroud comprising:

a substantially rigid shroud body having a shroud terminal end, a shroud wire end,

a shroud inner surface and a shroud outer surface, wherein said

substantially rigid shroud body has an asymmetrical polarizing shape;

an opening formed through the shroud wire end and allowing said at least one

20                   wire to pass therethrough;

wherein said overmolded connector is contained within said hardshell shroud;

a hardshell connector housing having a second connector sex, said hardshell connector  
housing comprising:

- PROVISIONAL PATENT APPLICATION
- at least one second terminal having a second terminal sex;  
a substantially rigid connector body having a connector body inner surface and a  
connector body outer surface, wherein said substantially rigid connector  
body has the asymmetrical polarizing shape;
- 5   wherein said hardshell shroud may be interengaged with said hardshell connector, such  
that said at least one first terminal engages respective ones of said at least one second  
terminal.
13.   The connector pair of claim 12, wherein said overmolded body comprises  
10   injection molded PVC.
14.   The connector pair of claim 12, further comprising:  
a plurality of annular sealing rings formed on the overmolded connector outer  
surface between the overmolded connector terminal end and the  
15   overmolded connector wire end;  
wherein said plurality of annular sealing rings are held against the connector body  
inner surface when said hardshell shroud is interengaged with said  
hardshell connector.
- 20   15.   The connector pair of claim 12, further comprising:  
a first polarizing feature having a first polarizing sex formed on the overmolded  
connector outer surface adjacent the overmolded connector wire end.

16. The connector pair of claim 15, further comprising:  
a second polarizing feature having a second polarizing sex formed on said shroud  
inner surface adjacent the shroud wire end, such that said first and second  
polarizing features interengage.

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17. The connector pair of claim 12, further comprising  
a raised sealing ridge formed around a periphery of the overmolded connector  
terminal end; and  
a reservoir formed within a boundary of said raised sealing ridge and adapted to  
10 contain a quantity of dielectric grease;  
wherein said raised sealing ridge is held against the connector body inner surface  
when said hardshell shroud is interengaged with said hardshell connector.

18. The connector pair of claim 12, further comprising:  
15 at least one first locking feature formed on said substantially rigid shroud body  
and having a first locking feature sex.

19. The connector pair of claim 18, further comprising:  
at least one second locking feature formed on said substantially rigid connector  
20 body outer surface and having a second locking feature sex, such that said  
first and second locking features lockingly interengage.

20. A connector pair, comprising:
- an overmolded connector, comprising:
- at least one first terminal having a first terminal sex;
- at least one wire respectively coupled for electrical communication with each of
- 5 said at least one terminals;
- an injection molded PVC body having an overmolded connector terminal end, an overmolded connector wire end and an overmolded connector outer surface, said PVC body at least partially encasing said at least one terminal and said at least one wire;
- 10 a plurality of annular sealing rings formed on the overmolded connector outer surface between the overmolded connector terminal end and the overmolded connector wire end;
- a first polarizing feature having a first polarizing sex formed on the overmolded connector outer surface adjacent the overmolded connector wire end;
- 15 a raised sealing ridge formed around a periphery of the overmolded connector terminal end; and
- a reservoir formed within a boundary of said raised sealing ridge and adapted to contain a quantity of dielectric grease;
- a hardshell shroud having a first connector sex, said hardshell shroud comprising:
- 20 a substantially rigid shroud body having a shroud terminal end, a shroud wire end, a shroud inner surface and a shroud outer surface, wherein said substantially rigid shroud body has an asymmetrical polarizing shape;

- a second polarizing feature having a second polarizing sex formed on said shroud inner surface adjacent the shroud wire end;
- an opening formed through the shroud wire end and allowing said at least one wire to pass therethrough;
- 5 at least one first locking feature formed on said substantially rigid shroud body and having a first locking feature sex;
- wherein said overmolded connector is contained within said hardshell shroud, such that said first and second polarizing features interengage;
- a hardshell connector housing having a second connector sex, said hardshell connector
- 10 housing comprising:
- at least one second terminal having a second terminal sex;
- a substantially rigid connector body having a connector body inner surface and a connector body outer surface, wherein said substantially rigid connector body has the asymmetrical polarizing shape;
- 15 at least one second locking feature formed on said substantially rigid connector body outer surface and having a second locking feature sex;
- wherein said hardshell shroud may be interengaged with said hardshell connector, such that:
- said at least one first terminal engages respective ones of said at least one second terminal;
- 20 said plurality of annular sealing rings are held against the connector body inner surface;
- said raised sealing ridge is held against the connector body inner surface; and

said first and second locking features lockingly interengage.

21. A connector, comprising:

an overmolded connector, comprising:

5 at least one first terminal having a first terminal sex;

at least one wire respectively coupled for electrical communication with each of

said at least one terminals; and

an overmolded body having an overmolded connector terminal end, an

overmolded connector wire end and an overmolded connector outer

10 surface, said overmolded body at least partially encasing said at least one

terminal and said at least one wire;

a hardshell shroud having a first connector sex, said hardshell shroud comprising:

a substantially rigid shroud body having a shroud terminal end, a shroud wire end,

a shroud inner surface and a shroud outer surface;

15 wherein said overmolded connector is contained within said hardshell shroud.

22. The connector of claim 21, further comprising:

a hardshell connector housing having a second connector sex, said hardshell connector

housing comprising:

at least one second terminal having a second terminal sex;

5 a substantially rigid connector body having a connector body inner surface and a  
connector body outer surface;

wherein said hardshell shroud may be interengaged with said hardshell connector, such  
that said at least one first terminal engages respective ones of said at least one second  
terminal.

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23. The connector of claim 21, wherein said overmolded body comprises injection  
molded PVC.

24. The connector of claim 21, further comprising:

15 a plurality of annular sealing rings formed on the overmolded connector outer  
surface between the overmolded connector terminal end and the  
overmolded connector wire end;

wherein said plurality of annular sealing rings are held against the connector body  
inner surface when said hardshell shroud is interengaged with said  
hardshell connector.

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25. The connector of claim 21, further comprising:  
a first polarizing feature having a first polarizing sex formed on the overmolded  
connector outer surface adjacent the overmolded connector wire end.
- 5    26. The connector of claim 25, further comprising:  
a second polarizing feature having a second polarizing sex formed on said shroud  
inner surface adjacent the shroud wire end, such that said first and second  
polarizing features interengage.
- 10    27. The connector of claim 22, further comprising  
a raised sealing ridge formed around a periphery of the overmolded connector  
terminal end; and  
a reservoir formed within a boundary of said raised sealing ridge and adapted to  
contain a quantity of dielectric grease;  
15    wherein said raised sealing ridge is held against the connector body inner surface  
when said hardshell shroud is interengaged with said hardshell connector.
28. The connector of claim 22, wherein said substantially rigid shroud body has an  
asymmetrical polarizing shape.
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29. The connector of claim 28, wherein said substantially rigid connector body has  
the asymmetrical polarizing shape.

30. The connector pair of claim 21, wherein said substantially rigid shroud body has an opening formed through the shroud wire end and allowing said at least one wire to pass therethrough.

- 5      31. The connector pair of claim 22, further comprising:  
          at least one first locking feature formed on said substantially rigid shroud body  
          and having a first locking feature sex.
- 10     32. The connector pair of claim 31, further comprising:  
          at least one second locking feature formed on said substantially rigid connector  
          body outer surface and having a second locking feature sex, such that said  
          first and second locking features lockingly interengage.